Research Statement

Josh Armstrong

My research is in philosophy of language, philosophy of biology, cognitive science, and environmental philosophy. My work attempts to understand human communication and cognition in their social, evolutionary, and environmental contexts. I approach traditional philosophical questions through an interdisciplinary lens, drawing widely on results from psychology, evolutionary theory, ethology, and anthropology.

My research to date can be divided into several strands. The first strand develops a new framework for communication, one which is informed by evidence about how non-human animals communicate. The second strand takes up the twin phenomena of linguistic variation across speakers and linguistic change over time. I argue that linguistic variation and change are explained by the malleability of linguistic conventions themselves. The third strand of my work argues that minds in general and the human mind in particular evolved as a result of our social dependence on others. A fourth strand of my work, one largely independent from my other research, considers the climate crisis in its cultural context. With my co-author, anthropologist H. Clark Bennett, I draw on results from anthropology and sociology to consider how policies to remit the climate crisis should be sensitive to certain systemic, emergent effects of human culture.[1]

I. Communication and Animal Sociality

A deeply influential tradition in philosophy of language says that communication necessarily involves *communication intentions*, where these are intentions to influence the minds of others in a certain way. On this view, part of what it is for me to communicate to someone that there is ketchup on the counter is for me to intend that that person come to think that there is ketchup on the counter. Thus, communication is thought to involve a sophisticated capacity for taking the perspectives of others. In stark contrast to this tradition, I develop, in **"Communication before Communicative Intentions,"** a framework on which communication can and does occur without communication intentions or, indeed,

[1] I have two additional projects not discussed here, each of which are 'stand-alone' projects in traditional philosophy of language. In "Truth and Imprecision," I argue that imprecision in language motivates a kind of pluralism about what is communicated. In "Singular Thoughts and Singular Propositions," my co-author and I argue that singular thoughts need not be characterized in metaphysical terms.

without any representation of another's mental states. Instead, I develop a positive proposal on which communication requires that two or more agents come to coordinate their states of mind through the flexible use of their observable actions and responses. But as certain results from animal behavior show, this kind of mental coordination can occur without any organism's representing the mental states of another. I further show that there are powerful evolutionary reasons for believing that communication is explanatorily and temporally prior to the capacity to represent another's mental states.

In a similar vein, I argue in "**Provincialism in Pragmatics**" and "**The Evolutionary Foundations of Common Ground**," that *common ground*, or a shared body of information, does not require the representation of others' mental states. Instead, both communication and common ground require a kind of mental co-responsiveness of a kind which can be achieved without this kind of perspective-taking. One of many implications of this approach is that it makes it feasible that in some cases, there might be significant common ground between communicators with different cognitive capacities, such as: young children, non-human animals, neurotypical adults, and non-neurotypical adults.

II. Dynamic Linguistic Conventions

A second strand of my research takes up the philosophical implications of widespread variation in what particular words mean, both between speakers and across the same speaker at different times. A number of influential thinkers have argued that linguistic variation across communities and rapid linguistic change within communities both rule out a role for social convention in a theory of human language use.

In a series of papers ("**The Problem of Lexical Innovation**," "**Coordination, Triangulation, and Language Use**," "**Meanings Without Species**," and "**Truth and Imprecision**"), I reject a background assumption that has typically been shared by both proponents and opponents of appeal to social convention in a theory of human language use—namely, that *if* social conventions figure in a theory of language use, then those conventions emerge out of *frequently* reoccurring patterns of linguistic interactions among *large and relatively stable* populations of language users. Instead, I argue that these social conventions are highly dynamic; indeed, conventions can vary even for individual language users as they interact with different subgroups embedded within wider populations.

My view that linguistic conventions are highly variable across local populations introduces a novel way in which context influences what is said. It is already broadly recognized that, *within a language*, context can influence what is said. For instance, the utterance 'that person is tall' will be true in some contexts but false in others. On my view, there is an additional, *meta-semantic*, way in which context matters; context can influence which linguistic conventions are in effect in a particular instance of communication. For instance, the politically charged utterance 'that person is woke' doesn't just have different connotations for different populations. It actually *means something different* in the mouths of different speakers. This view has the potential to explain some of the notorious difficulties in establishing meaningful communication across different cultural contexts, which is not to suggest that such communication is impossible.

III. The Evolution of Mind & Language in a Social Context

A third strand of my work concerns the evolution of mind and language. In a word, I argue that our cognitive and linguistic capacities evolved because of our sociality and specifically, because of our dependence on others.

In "**Language as Skill**," Carlotta Pavese and I use evolutionary considerations to motivate the thesis that human language capacities are distinctive kinds of acquired skills or know-how. The thesis that human language capacities are skills has often been thought to be at odds with the well-supported contention that human language capacities are grounded in a biologically inherited set of language instincts or a Universal Grammar. We argue, in contrast, that empirical evidence suggests that human language capacities are skills *guided by* instincts. We also argue that this explanation coheres with a broader picture on which the human capacity for language evolved because of our social dependence on others.

I further explore the question of how the human capacity for language and cognition evolved in two papers in-progress (**"On the Proper Function of Meaning Intention,"** and "**The Origins of Languages and (I-)Language"**) and in a book in-progress (***The Social Origins of Mind***). In broad form, I argue that our ability to form social bonds, or attachments, played a key role in the evolutionary emergence of certain human cognitive capacities, including the capacity for language but also social norms and theory of mind. Roughly, the way in which attachments played this role is that they created reoccurring contexts of cooperative social interaction, ones in which individual agents in the course of

natural development learned from others and thereby came to extend their capacities for mental representation and bodily control. In this way, my work emphasizes the importance of social complexity—and more specifically, of cultural diversity—in the evolutionary processes that gave rise to the human mind.

IV. Human Culture and Strategies for Remitting the Climate Crisis

Outside of my primary research into understanding mind and language in their social and evolutionary contexts, I have developed work on strategies for remitting the climate crisis.

It is widely recognized that culture constrains the efficacy of potential policies designed to ameliorate climate change. In "Climate Change Adaptation and the Back of the Invisible Hand," H. Clark Barrett and I argue that these cultural constraints are far more important than has often been recognized. This is because culture brings about a kind of 'invisible hand' process, wherein culture generates effects no particular individual intends and which no individual controls or can easily opt out of. While this 'invisible hand' effect is widely recognized as a source of positive change, we draw on a range of results from anthropology to show that this effect can also bring about negative change. We further suggest some ways in which recognizing this fact could positively influence climate decision-making.

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